

REMARKS/ARGUMENTS

This paper is in response to the Advisory Action mailed August 23, 2005. Independent claim 3 has been amended to address the Examiner's concern that the present heat flux sensors may be used for temperature measurement, even though the present invention does not require temperature measurement. Support for the change to claim 3 can be found in paragraph [0015] of the specification. No new matter has been added. Claims 3-8, 11, 13, 19-24, 27, 29 and 35-38 remain in this application.

In the Advisory Action, the Examiner contends that a newly discovered reference, namely Wynnyckyj et al. (U.S. 4,571,094), anticipates Applicants' invention in that Wynnyckyj discloses use of heat flux meters to quantify deposit accumulation. Although Applicant respectfully submits that Wynnyckyj represents a new ground of rejection reserving Applicant the right to respond more fully to a non-final office action, Applicant in all candor would like to briefly distinguish Wynnyckyj herein in order to facilitate the expeditious prosecution of the present application.

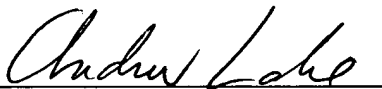
Wynnyckyj is clearly distinguishable from Applicants' claim 3 in that Wynnyckyj fails to disclose a "heat transfer path" capable of transferring heat flux between the reference and fouling surfaces as required in Applicant's claim 3. Unlike Applicants' invention, the reference surface of Wynnyckyj is not in thermal communication with the fouling surface, but rather is maintained at a constant heat flux by the furnace flame. The other heat flux meter is then used to independently measure heat flux at the fouling surface. (column 2, lines 12-21; column 3, lines 50-58). In sharp contrast, the heat flux sensors of Applicants' invention provide a thermal balance (i.e. thermal bridge) type of construction, wherein the heat flux sensors are in thermal communication with a heat transfer path 50 (Figure 1) for transferring heat flux between the sensors to measure true differential heat flux between the sensors. (Paragraphs 15, 17) At an unbalance state, the heat flux flowing to the fouling surface will decrease while the heat flux flowing to the reference surface will increase.

Based on the foregoing, Applicant respectfully submits that independent claim 3 is patentably distinct over Wynnyckyj. Accordingly, the prompt allowance of the application is respectfully requested.

Should the Examiner determine that anything else is desirable to place this application in even better form for allowance, the Examiner is respectfully requested to contact the undersigned at the phone number listed below.

Respectfully submitted

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